1 Introduction

1.0 INTRODUCTION

On September 3, 2003, BHP Billiton LNG International Inc. (BHPB, or the Applicant) submitted a Deepwater Port Act (DWPA) application to the U.S. Coast Guard (USCG) and the U.S. Maritime Administration (MARAD) and an application for a lease of State lands to the California State Lands Commission (CSLC) to own, construct, and operate Cabrillo Port LNG Deepwater Port. The proposed facilities include: a new offshore liquefied natural gas (LNG) floating storage and regasification unit (FSRU) located 12.01 nautical miles (NM) (13.83 miles or 22.25 kilometers [km]) off the coast of Ventura County and Los Angeles County, California, in Federal waters 2,900 feet (884 meters [m]) deep; new offshore and onshore natural gas pipelines; and related facilities (the Project). The Applicant's projected in-service life for the FSRU is a maximum of 40 years. Figure 1.0-1 shows the main Project facilities and their locations. Project details include those listed below.

- Double-hulled, cryogenic vessels would transport LNG from the Pacific Basin (Australia's Scarborough Field is BHPB's preferred source) and unload the LNG at the FSRU, and where it would be stored then regasified. The FSRU would receive approximately one to two shipments per week (a maximum of 99 carriers per year).
- The FSRU would be a new, ship-shaped, double-sided, double-bottom facility with three spherical tanks, and the following dimensions: 971 feet (296 m) long, 213 feet (65 m) wide, and 161 feet (49 m) tall from the waterline to the top of the tanks when loaded.[1] The FSRU would have a displacement of approximately 190,000 dead weight tons and a total LNG storage capacity of about 72 million gallons (273,000 cubic meters [m^3]) (see Section 2.2.2, "Floating Storage and Regasification Unit"). The FSRU would be moored to the sea floor by a fixed, turret-style mooring point that uses nine cables and anchor points; it would not contain engines and could not steam under its own power.
- LNG would be regasified on the FSRU using a controlled heating process consisting of submerged combustion vaporizers. Seawater would not be used to regasify the LNG.
- A closed loop tempered water cooling system would be used to cool the onboard generators. The system would circulate water to and from two submerged combustion vaporizer baths and the engine room. A seawater cooling system would serve as a backup system during maintenance of the submerged combustion vaporizers (SCVs) or when the inert gas generator is operating.
- Odorized natural gas would be transmitted to offshore pipelines through the flexible risers located in the mooring turret at the FSRU's bow.
- BHPB would install, own, operate, and maintain two new 24-inch (0.6 m) diameter natural gas pipelines between the FSRU and a new onshore metering

[1] Dimensions have been rounded to the nearest foot and meter.

station and deliver an annual average of 800 million cubic feet per day (MMcfd) (22.7 million m^3/day) of natural gas (not LNG) to shore for distribution by the Southern California Gas Company (SoCalGas). BHPB would also fund the construction of the following facilities: the metering station; a new 36-inch diameter (0.9 m) pipeline from the metering station to Center Road Station in Ventura County; a new 30-inch diameter (0.8 m) pipeline loop in Santa Clarita, Los Angeles County; and other onshore Project-related facilities. SoCalGas has identified these onshore components—which SoCalGas would ultimately own, operate, and maintain—as necessary system improvements to receive 800 MMcfd (22.7 million m^3) at the Center Road Station (Bisi 2004).

- Under normal operating conditions, the annual average throughput would be 800 MMcfd; however, the Applicant has calculated that maximum operating scenarios would allow deliveries of up to 1.2 billion cubic feet per day, or the gas equivalent of 1.5 billion cubic feet per day on an hourly basis for a maximum of six hours. These operating conditions would only be in effect if SoCalGas were to offer the Applicant the opportunity to provide additional gas in cases of supply interruption elsewhere in the SoCalGas system or extremely high power demand, for example, during hot summer days (Moyer 2006).

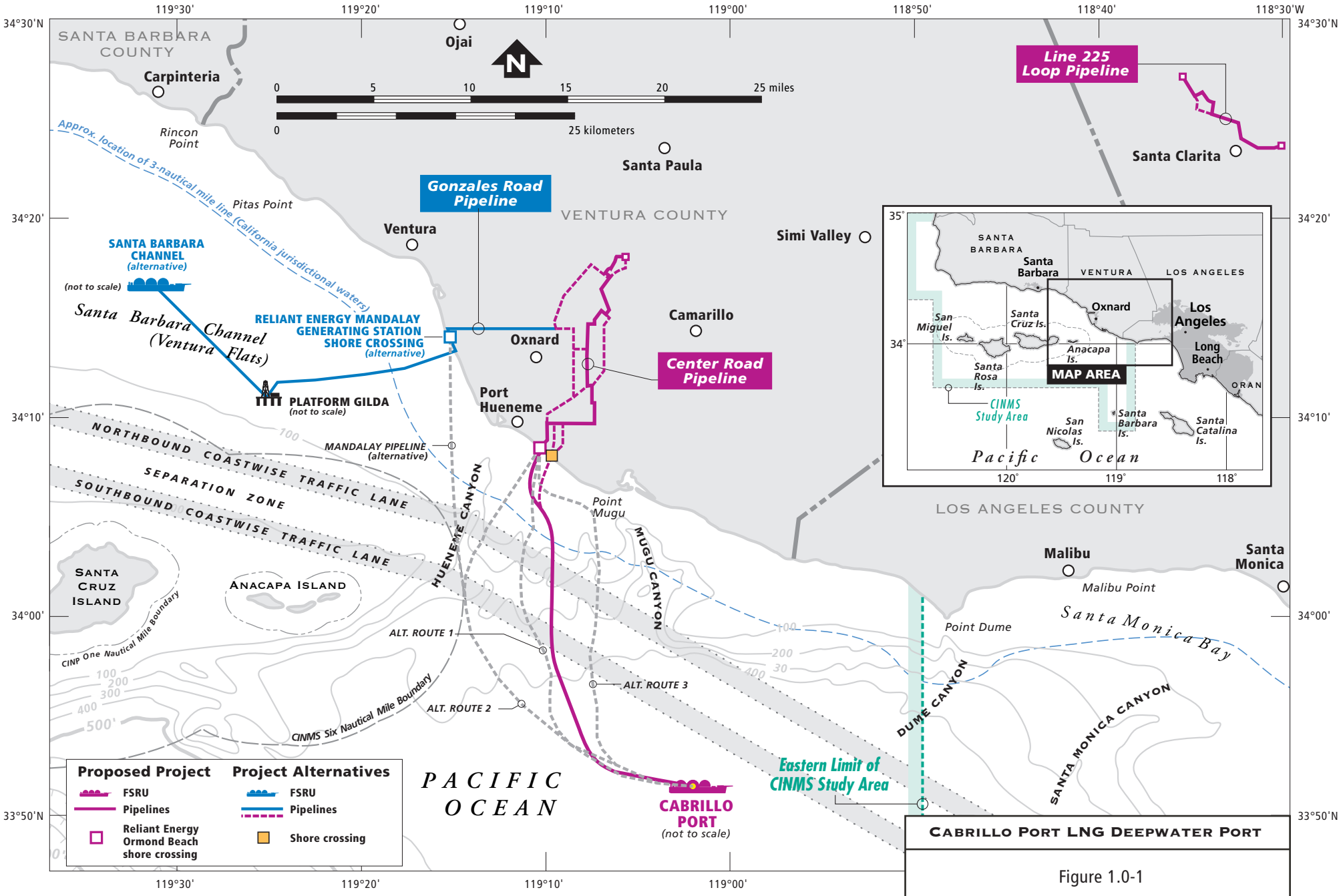
This document has been prepared to comply with the National Environmental Policy Act of 1969 (NEPA), the Council on Environmental Quality (CEQ) regulations for implementing NEPA (40 Code of Federal Regulations [CFR] §§ 1500–1508), Department of Homeland Security Environmental Planning Program (Management Directive 5100.1), U.S. Coast Guard (USCG) Implementation Regulations (Commandant's Instructions, National Environmental Policy Act: Implementing Procedures and Policy for Considering Environmental Impacts M16475.1D), the DWPA, the California Environmental Quality Act (CEQA), and the State CEQA Guidelines (Title 14, California Code of Regulations [CCR], 15000 et seq.).

1.1 BACKGROUND INFORMATION

1.1.1 The Deepwater Port Act

The DWPA of 1974, as amended, establishes a licensing system for ownership, construction, and operation of deepwater port (DWP) facilities. The DWPA is drafted to promote the importation of natural gas, as well as oil (33 U.S.C. § 1501(a)(5)). Federal law (33 U.S.C. § 1502(9) et seq.) defines a DWP as any fixed or floating manmade structure other than a vessel, or any group of such structures, that is located beyond state seaward boundaries and that is used or intended for use as a port or terminal for the transportation, storage, or further handling of oil or natural gas for transportation to any state. The DWP consists of both the offshore terminal and the offshore pipeline(s) to the mean high water tide line onshore.

Source: Ecology and Environment, Inc.



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Map depicts approximate locations based on best available data.

Bathymetric contours are in fathoms.

CABRILLO PORT LNG DEEPWATER PORT

Figure 1.0-1

Proposed Cabrillo Port LNG Deepwater Port Facilities

001883.CA04.03.00.g2 (BHP Cabrillo Port folder) 02/29/2006

Under the DWPA, the Secretary of the U.S. Department of Transportation (Secretary) has the authority to issue a license for a DWP facility. The Secretary has delegated the authority to issue DWPA licenses to the MARAD Administrator; and through various delegations and authorities the USCG, in coordination with MARAD, preprocesses the DWP application and completes the NEPA review and public involvement (see 68 Federal Register 36496 [June 18, 2003] and 62 Federal Register 11282 [March 12, 1997]). In connection with the proposed Project, MARAD must determine whether to issue the DWP license. In making this decision, MARAD must make a number of determinations, described in the DWPA at 33 U.S.C. § 1503, which further those Congressional objectives assigned to the Secretary through the DWPA. Pursuant to 33 U.S.C. § 1501(a), as a part of the responsibility for issuing licenses, MARAD is required to:

1. Authorize and regulate the location, ownership, construction, and operation of DWPs in waters beyond the State's seaward boundary;
2. Provide for the protection of the marine and coastal environment to prevent or minimize any adverse impact that might occur as a consequence of the development of such ports;
3. Protect the interests of the United States and those of adjacent coastal states in the location, construction, and operation of DWPs;
4. Protect the rights and responsibilities of states and communities to regulate growth, determine land use, and otherwise protect the environment in accordance with law;
5. Promote the construction and operation of DWPs as a safe and effective means of importing oil or natural gas into the United States and transporting oil or natural gas from the outer continental shelf while minimizing tanker traffic and the risks attendant thereto; and
6. Promote oil or natural gas production on the outer continental shelf by affording an economic and safe means of transportation of outer continental shelf oil or natural gas to the United States mainland.

The DWPA sets the scope of governmental action. It is not a "command and control" system funded by the government. Rather, it is a process that is application-driven, with the Applicant bearing the costs of the application processing, including the NEPA review, based upon sound business decisions. The role of the Federal government is to carry out the Congressionally imposed mandates (33 U.S.C. § 1501) of the DWPA.

One of the mandates of the DWPA is to "promote the construction and operation of deepwater ports as a safe and effective means of importing oil or natural gas into the United States and transporting oil or natural gas from the outer continental shelf while minimizing tanker traffic and the risks attendant thereto." The mandate serves to define the constraints within which MARAD and the USCG evaluate the purpose and need for a project under the DWPA. The MARAD and the USCG must also respond to a specific application that has been filed.

Following the completion of the Final Environmental Impact Statement/Environmental Impact Report (EIS/EIR), MARAD and the USCG will hold one or more DWPA public hearings to receive comments on the Federal license application. If the U.S. Environmental Protection Agency (USEPA) or the Governor of the adjacent coastal state express their disapproval of the Project (discussed below), MARAD may approve, approve with conditions, or deny the license for the proposed Project. MARAD will issue a Record of Decision on the application. If the license is approved, the Record of Decision is followed by a license that reflects the terms and conditions set forth in the Record of Decision. The Federal license has no expiration date and would remain valid as long as the operator remains in compliance with the license, unless suspended or revoked by MARAD.

1.1.2 The Governor of California's Role in DWP Licensing

MARAD may not issue a license without the approval of the Governor of the adjacent coastal state (33 U.S.C. § 1503(c)(8)). In this case, the adjacent coastal state is California. The Governor of California must approve, approve with conditions, or deny the DWPA license within 45 days of the last Federal DWPA hearing or, if the Governor does not act within 45 days, approval will be conclusively presumed. Should the Governor notify MARAD that the DWPA application is inconsistent with California programs related to environmental protection, land and water use, and coastal zone management, but is otherwise acceptable, MARAD must impose conditions on the license, proposed by the Governor, to make it consistent with California programs. State permits would also be conditions of the license, if issued.

1.1.3 U.S. Environmental Protection Agency

The Port must meet all Federal and State requirements and is required to obtain air and water discharge permits from the USEPA. MARAD may not issue a license if the Administrator of the USEPA states that the port will not conform to all applicable provisions of the Clean Air Act (CAA), the Federal Water Pollution Control Act, and the Marine Protection, Research and Sanctuaries Act.

1.1.4 The California State Lands Commission

The CSLC was established in 1938 with the authority and responsibility to manage and protect natural and cultural resources on certain public lands within the State, including, but not limited to, the State's ungranted tide and submerged lands along the State's coastline extending from the mean high tide line out to 3 NM (3.5 miles or 5.6 km) offshore. The authority and responsibilities of the CSLC are set out in Division 6 of the California Public Resources Code § 6001 et seq. The CSLC may lease the State's tide and submerged lands for certain public trust purposes, including navigation, fisheries, commerce, recreation, and environmental protection and preservation. In connection with the proposed Project, the CSLC must consider whether or not to grant a lease of State lands for the subsea pipelines. The lease may also include conditions relating to those parts of the Project not located on the lease premises.

1.1.5 NEPA and CEQA Requirements for DWPA Licenses and CSLC Leases

For all applications, the DWPA provides that MARAD, in cooperation with other involved Federal agencies and departments, will comply with NEPA and consult with states that are adjacent to the proposed DWP's location. For the purposes of the BHPB license application, California is the adjacent coastal state. On behalf of MARAD, the USCG has determined that compliance with NEPA for the Project facilities requires preparation of an EIS. The CSLC has determined that compliance with the CEQA requires preparation of an EIR.

Because of the many similarities between an EIS and an EIR, the USCG (in coordination with MARAD, the lead Federal agency) and the CSLC agreed to cooperate in preparing a single document that can satisfy NEPA and the CEQA. Areas where USCG and CSLC requirements diverge are stated explicitly in the text. The environmental staffs of the USCG, MARAD, and the CSLC worked together to complete this Final EIS/EIR in accordance with NEPA and the CEQA to assess the environmental impacts associated with the construction, operation, and maintenance of facilities proposed by the Applicant.

1.2 PROJECT PURPOSE, NEED, AND OBJECTIVES

The discussion of purpose in this Final EIS/EIR addresses a specific proposed project, not a broader Federal or State energy policy. In an EIS/EIR, the purpose is the specific objectives of a proposed project, and the need is the broader societal goals to which the project is responding. The discussion of purpose and need should be as specific and comprehensive as possible. For this proposed Project, the objective is to license and build a DWP to deliver specified quantities of natural gas to California and the United States. The Project would include storage capacity for LNG such that it would continuously supply natural gas to California. The need for the proposed Project is market-based: it would meet the economic need for reliable and diverse sources of natural gas. Natural gas also burns cleaner than other fossil fuels, which meets other societal goals such as reduced air pollution. See Section 1.2.5 for a more detailed discussion of the Applicant's purpose and objectives.

Public comments received during the review period for the October 2004 Draft EIS/EIR and the March 2006 Revised Draft EIR included Federal and State jurisdiction for the deepwater port; purpose and need of the proposed Project; dependence on foreign energy sources; natural gas needs in the US and California; environmental effects abroad; the role and status of energy conservation and renewable energy sources; and the final approval process for the EIS/EIR and the license for the deepwater port.

1.2.1 Federal and State Responsibilities

The requirement for a discussion of "purpose and need" in an EIS, under the Council of Environmental Quality's (CEQ) regulations implementing the procedural provisions of NEPA, is to "briefly specify the underlying purpose and need to which the agency is responding in proposing the alternatives including the proposed action" (40 CFR §

1502.13). Similarly, the State CEQA Guidelines § 15124(b) requires an EIR to contain "a clearly written statement of objectives [that] will help the lead agency develop a reasonable range of alternatives to evaluate in the EIR and will aid the decision-makers in preparing findings or a statement of overriding considerations, if necessary. The statement of objectives should include the underlying purpose of the project." The State CEQA Guidelines § 15126.6(a) requires in part that "[a]n EIR shall describe a range of reasonable alternatives to the project, or to the location of the project, which would feasibly attain most of the basic objectives of the project but would avoid or substantially lessen any of the significant effects of the project, and evaluate the comparative merits of the alternatives."

The USCG, MARAD, and the CSLC are the lead agencies for the preparation of the Cabrillo Port LNG Deepwater Port EIS/EIR. In addition to the lead agencies, other Federal, State, and local agencies will use the information presented in the EIS/EIR in deciding whether or not to approve or issue permits or other approvals for all or part of the proposed Project. Federal, State, and local permits, approvals, and consultations for the Project are listed in Section 1.6, "Permits, Approvals, and Regulatory Requirements."

The Federal lead agency proposing to take an action has the authority for and responsibility to define the "purpose and need" for purposes of NEPA analysis. This is consistent with the lead agency's responsibilities throughout the NEPA process for the "scope, objectivity, and content of the entire statement or of any other responsibility" under NEPA (42 U.S.C. § 4332(D); see also 40 CFR §§ 1501.5 and 1506.5).

The six elements of Congressional intent expressed in the DWPA, listed above (see Section 1.1.1, "The Deepwater Port Act"), provide the purposes of the Project that the Secretary must follow in considering any DWPA project application. To meet the objectives of the DWPA, the Secretary is directed to promote new DWPs that:

- Are financially responsible;
- Protect the environment;
- Must be in the national interest and consistent with national security and energy sufficiency;
- Must protect the interests of the United States and those of adjacent coastal states in the location, construction, and operation of deepwater ports;
- Will afford an economic and safe means for importing oil or natural gas into the United States or transporting oil or natural gas from the outer continental shelf to the United States mainland;
- Are located in U.S. territorial waters beyond the seaward boundaries of a state and are not sited in areas that will cause them to unreasonably interfere with international navigation or other reasonable uses of the high seas, as defined by treaty, convention, or customary international law;

- Protect the interests of adjacent coastal states concerning the right to regulate growth, determine land use, and otherwise protect the environment in accordance with law; and
- Promote the construction and operation of deepwater ports as a safe and effective means of importing oil or natural gas into the United States and transporting oil or natural gas from the outer continental shelf while minimizing tanker traffic and the risks attendant thereto.

The intent of the NEPA analysis is to provide the Administrator of MARAD with information to consider in determining whether to approve, deny, or approve with conditions the DWPA license application.

At the same time, the CSLC is reviewing the application as to whether to grant the Applicant a lease to cross California State sovereign lands. The CSLC has statutory authority under the Public Resources Code, Division 6, Parts 1 and 3, for the administration and control of State lands. The CSLC authorizes leasing of State lands to qualified applicants based on what it deems to be in the best interest of the State in compliance with the CEQA.

The California Energy Commission (CEC) and the California Public Utilities Commission (CPUC) are the State agencies responsible for ensuring that California's energy-related interests and needs are met. California law (Public Resources Code § 25302) directs State agencies to carry out their respective energy-related duties and responsibilities based upon the information and analyses contained in a biennial integrated energy policy report adopted by the CEC.[2]

The CSLC will apply its independent judgment to the adequacy of the CEQA document and other relevant information, including information provided by the CEC and CPUC. The CSLC's objectives for this Project are further discussed in Section 1.3.2, "The California State Lands Commission."

Following publication of this Final EIS/EIR, MARAD, the USCG, and the CSLC will serve public notice and hold final hearings. MARAD and the USCG will hold a final

[2] The Warren-Alquist State Energy Resources Conservation and Development Act (Public Resources Code, Division 15) established the California Energy Resources Conservation and Development Commission (the CEC's formal name) as the State's principal energy policy and planning organization. In fall 2002, the State Legislature amended the Warren-Alquist Act to require the CEC to prepare a biennial integrated energy policy report (Senate Bill 1389 [Chapter 568, Statutes of 2002]). Pursuant to this law, the CEC adopted the 2003 Integrated Energy Policy Report (2003 Energy Report) at a public hearing on November 12, 2003, after CEC staff held public workshops in spring and summer 2003, and an Integrated Energy Policy Report Committee conducted public hearings throughout California in October 2003 (CEC Docket No. 02-IEP-1). The Integrated Energy Policy Report, 2004 Update (2004 Energy Report Update) was also prepared through a public process (19 workshops and five Committee hearings were held), and adopted by the CEC at a public hearing on November 4, 2004 (CEC Docket No. 03-IEP-1). The CEC adopted the 2005 Integrated Energy Policy Report on November 21, 2005. (CEC-100-2005-005-CTF).

DWPA license hearing in accordance with 33 CFR § 148.222. After the final license hearing is concluded by MARAD and the USCG, the Commandant (CG-3PSO), in coordination with the Administrator of MARAD, will consider any requests for a formal hearing as specified in 33 CFR § 148.228. The CSLC will hold a hearing to certify the EIR and make the decision whether to grant a lease.

1.2.2 Natural Gas Need in the United States

The Federal Energy Information Administration (EIA) is a primary source of the data on the Federal energy forecasts and analyses used in this document. The EIA, created by Congress in 1977, is part of the U.S. Department of Energy. The EIA provides policy-independent data, forecasts, and analyses to promote sound policy-making, efficient markets, and public understanding regarding energy and its interaction with the economy and the environment. Despite anticipated increases in the use of renewable energy resources and conservation in the U.S. supply/demand balance sheet, the EIA projects that total demand for natural gas will increase at an annual rate of 1.3 percent nationwide from 2004 to 2030, primarily as a result of the increasing use of natural gas for electricity generation and industrial applications (EIA 2006).

The EIA's Annual Energy Outlook 2006 projects total natural gas consumption increases from 22.4 trillion cubic feet in 2004 to 26.9 trillion cubic feet in 2030. Overall increases in natural gas use are moderated by high prices in the 2006 projection. The growth in demand for natural gas slows in the later years of the forecast as rising natural gas prices are anticipated to lead to the construction of more coal-fired electricity generation plants (EIA 2004, 2005, and 2006). Natural gas use for electric power is projected to peak in 2019 at 7.5 trillion cubic feet and to drop to 6.4 trillion cubic feet by 2030 as the new coal-fired plants become operational.

The projections in the EIA's Annual Energy Outlook 2006 are based on the National Energy Modeling System. The Renewable Fuels Module of the model included supply inputs from hydroelectricity, biomass, geothermal, landfill gas, solar thermal electricity, solar photovoltaics, and wind energy. Investment tax credits for renewables are included for business investment in solar and geothermal energy. Production tax credits for wind energy and some types of biomass-fueled plants also are included through 2015.

The EIA concludes that LNG imports will provide an increasing proportion of U.S. natural gas supply, LNG imports accounted for 0.6 trillion cubic feet in 2004 and are projected to total 4.1 trillion cubic feet in 2025 (two-thirds of the volumes presented in the 2006 Energy Outlook). As worldwide liquefaction capacity continues to expand and LNG becomes an increasingly important energy source for many countries and a global commodity, the world natural gas market is expected to affect the U.S. market. According to the 2006 Energy Outlook, total net LNG import capacity in the United States and the Bahamas is projected to increase from 1.4 trillion cubic feet in 2004 to 4.9 trillion cubic feet in 2015, and to 5.8 trillion cubic feet in 2030 (EIA 2006). Actual LNG imports are expected to total 3.1 trillion cubic feet in 2015 and 4.4 trillion cubic feet in 2030. Overseas LNG imports are expected to surpass natural gas imports from

Canada, historically the primary source of natural gas imports for the United States before 2015, with net import of natural gas from Canada totaling 1.8 trillion cubic feet in 2030. The EIA now expects that imports of natural gas from Canada will decline in the next 15 years (Peevey 2006). The 2006 Energy Outlook states, "[g]rowth in LNG imports is projected to meet much of the increased demand for natural gas [according to the modeling projections of the reference case]."

Part of Congress's intent in establishing the DWPA was to provide mechanisms to meet the nation's existing and future demand for supplies by increasing access to worldwide offshore oil sources for importation. The DWPA, as amended by the Maritime Transportation and Security Act 2002 to include natural gas and offshore LNG facilities, indicates that the Federal government recognizes the potential for LNG imports to become a key supply source to the United States.

1.2.3 Natural Gas Need in California

The CEC's 2005 Integrated Energy Policy Report Committee Final Report provides the energy context for California's natural gas needs (CEC 2003, 2004, 2005b). The California Legislature recognizes that the CEC is the State's principal energy policy and planning organization and that the CEC is responsible for determining the energy needs of California. These responsibilities are established in State law (the Warren-Alquist State Energy Resources Conservation and Development Act [Public Resources Code, Division 15]).

The CEC's 2005 Integrated Energy Policy Report projects that California's natural gas demand will be slower than the rest of the nation's because of the state's energy efficiency measures and use of renewable fuels; however, the demand is growing. California's total natural gas demand is projected to increase 0.7 percent per year from 2006 to 2016 (CEC 2005b).

In the State of California's Energy Action Plan II: Implementation Road Map for Energy Policies, the CEC and the CPUC acknowledge that to ensure a reliable, long-term natural gas supply to California at reasonable rates, demand must be reduced or moderated (CEC and CPUC 2005). However, the two agencies agree that because natural gas is becoming more expensive, and because much of electricity demand growth is expected to be met by increases in natural gas-fired generation, the State must promote reducing consumption of electricity and diversifying electricity generation resources to reduce natural gas demand and lower consumers' bills. The plan also states that California must promote infrastructure enhancements and diversify supply sources to include LNG. With respect to natural gas, the plan includes the following proposed key actions:

- Continue the State's LNG Interagency Permitting Working Group and develop a process to facilitate the prompt and environmentally-sensitive evaluation and siting of needed LNG facilities;
- Provide that the natural gas delivery and storage system is sufficient to meet California's peak demand needs; and

- Encourage the development of additional in-state natural gas storage to enhance reliability and mitigate price volatility.

Section 4.10.1.3 lists all eight actions from the California Energy Action Plan II.

According to the 2005 Natural Gas Assessment Update (CEC 2005a), California consumes approximately 6 billion cubic feet (Bcf) per day of natural gas, and during some months this demand peaks to 10 Bcf per day. California's total annual consumption of natural gas was 2,200 Bcf in 2003; by 2013, natural gas demand in the State is projected to reach 2,400 Bcf, in part as a result of the growing use of natural gas for electricity generation. According to the EIA, electricity generation and industrial consumers are the largest users of natural gas in California (33 percent and 32 percent respectively), followed by residential (23 percent) and commercial (11 percent) customers (CEC 2005a). Residential and commercial customers use natural gas primarily to heat spaces (homes, businesses, etc.) and water. Compressed natural gas and LNG are also used as transportation fuels, and natural gas vehicles are certified to meet California's low-emission vehicle standards to enhance air quality, including the strict "ultra low" and "super ultra low" emission standards.

Additional interstate natural gas pipeline capacity has been increased, including the Kern River Expansion, which has increased access to the Rocky Mountain supply basin (FERC and CSLC 2002). The Transwestern Pipeline Project also has increased the natural gas supply to California significantly by increasing California access to San Juan Basin natural gas. The ability of these traditional supply sources (Western Canada and the Southwest) to continue to supply California would depend on further pipeline capacity improvements in the Rocky Mountain Basin as well as on industry success in finding and extracting new sources (CEC 2003).

Although the CEC estimates that North America has ample natural gas resources today, it notes that Western Canadian and Southwestern sources are maturing, that production is declining from these areas, and that today's high natural gas prices reflect declining supplies, increased competition from other states to satisfy the regional natural gas demand, and the dominant effect the U.S. natural gas market has upon California prices (CEC 2005a). The CEC also has noted that foreign sources could have a downward pressure on natural gas prices, although it also cautions against over-dependence on such sources (CEC 2003).

Given the projected demand for natural gas and the need to reduce potential supply interruptions, the CEC has identified the need for California to develop new natural gas infrastructure to access a diversity of fuel supply sources and to remove constraints on the delivery of natural gas. The CEC analysis incorporates current energy sources and planned future energy projects throughout the western United States and up to British Columbia, Canada. As part of its demand projections the CEC looks at all energy sources, including renewable energy sources and conservation efforts, both planned and already available.

CEC energy demand forecasting models specifically quantify and incorporate conservation and energy efficiency influences, such as mandatory building and appliance standard upgrades and demand reductions from customer response to energy price increases (CEC 2005c). Conservation and energy efficiency that is "reasonably expected to occur" must be incorporated into the CEC models, as statutorily required. Statewide investor owned utilities programs, such as Single and Multi-Family Energy Efficiency Rebates, Residential Appliance Recycling, CA Energy Star New Homes, and Savings by Design, are responsible for most of the energy savings and peak impacts from conservation and efficiency (CEC 2005c).

The CEC demand forecasting models assume that the California investor owned utilities (and suppliers from other Western states), which are required to meet a Renewable Portfolio Standard, will meet their obligations (Marks 2006). Renewable energy accounts for a certain percentage of the annual procurement of California's three largest investor owned utilities. The annual procurement target increases by at least 1 percent each year until it reaches a statutory maximum of 20 percent (with a three-year flexible compliance rule for meeting this target). In addition, an investor owned utility may procure additional renewable energy resources to meet its retail electricity customers' demand if renewable energy sources score higher than nonrenewable generation in its "least cost, best fit" ranking of available resources (Miller 2006).

According to the CEC, although increases in conservation, efficiency, and use of renewable energy sources are expected to moderate future demand, the policies and mandates in place do not suggest that incorporating conservation, energy efficiency, and the use of renewable energy resources will meet all future investor owned utility portfolio needs (Miller 2006).

Increases in conservation, energy efficiency, and use of renewable energy sources are offset by population and business growth, as well. With respect to natural gas, the 2005 Integrated Energy Policy Report states:

> California clearly needs to increase the diversity of its natural gas supply portfolio. Being at the end of a long interstate pipeline network, California must also have access to a variety of sources. LNG is one such potentially cost-competitive and reliable source. . . . LNG simultaneously presents natural gas supply opportunities, additional infrastructure capacity into the West Coast, and coastal industrial development challenges. In considering LNG projects currently proposed for California, the state must address safety, environmental, and gas quality issues associated with these projects in an efficient and equitable manner (CEC 2005b).

The 2005 Natural Gas Assessment Update states:

> To make more efficient use of existing natural gas supplies, the 2003 Energy Report recommended increasing energy efficiency programs that reduce both natural gas and electricity use. The State should also pursue strategies to generate 33 percent of its electricity from renewable energy. Even with these

> aggressive actions, however, the statewide demand for natural gas will continue to grow by at least one percent per year requiring additional natural gas imports into the State.

California's major investor owned utilities have signed contracts for 1,700 to 3,000 megawatts of renewable capacity since 2002, and PG&E made its fourth solicitation on June 29, 2006, asking suppliers to provide bids for renewable energy (CEC 2006; PG&E 2006). California's use of renewable energy has increased by 1 percent of the State's total electricity use in the last four years despite statewide support for enhanced use of renewable energy (Martin 2006). Lawrence Berkeley National Laboratory notes that one of the reasons renewables have come on line more slowly than expected in California is that California's Renewables Portfolio Standard Program, established by Senate Bill 1078 in 2002, is unique in its design and complexity as compared to similar programs across the country (Wiser and Bolinger 2005).

Further, a study commissioned by the California Energy Commission indicates that some signed renewable energy contracts nationwide do not result in operating facilities. The rate of "contract failure," is conservatively between 20 and 30 percent (CEC 2006). Contract failure is a significant factor in renewable procurement strategies and may contribute to missing State renewable targets (Martin, 2006). Two recent California laws address energy. Senate Bill 1368, concerning emissions of greenhouse gases, was signed into law on September 29, 2006. Effective January 1, 2007, this law will require long-term energy contracts signed with the State to meet new emissions standards set by the California Energy Commission. It will also require electricity produced out-of-state to comply with the same standards as in-state power. The purpose of this law is to discourage new construction of out-of-state highly polluting coal plants to supply energy to California. Senate Bill 107, concerning the public interest energy research, demonstration, and development program for renewable energy, requires retail electricity sellers to meet the 20 percent renewables requirement by 2010 instead of 2017.

1.2.4 Increasing Dependence on Foreign Sources for the Supply of Natural Gas

Congress passed the DWPA with the express purpose of encouraging imports of natural gas to the United States: the DWPA's stated policy (Section 1501(a)(5)) is "to promote the construction and operation of deepwater ports as a safe and effective means of importing oil or natural gas into the United States." While energy independence is a national goal, it is influenced by other national considerations such as energy sufficiency, energy security, and the United States economy. In light of the EIA's projections, natural gas imports are necessary to ensure a reliable alternative energy source that enhances the nation's diversity of energy supplies and energy sufficiency and supports a thriving United States economy.

> The primary purpose of an environmental impact statement is to serve as an action-forcing device to insure that the policies and goals defined in the Act are infused into the ongoing programs and actions of the Federal Government. It shall provide full and fair discussion of significant

> environmental impacts and shall inform decisionmakers and the public of the reasonable alternatives which would avoid or minimize adverse impacts or enhance the quality of the human environment. Agencies shall focus on significant environmental issues and alternatives and shall reduce paperwork and the accumulation of extraneous background data. Statements shall be concise, clear, and to the point, and shall be supported by evidence that the agency has made the necessary environmental analyses. An environmental impact statement is more than a disclosure document. It shall be used by Federal officials in conjunction with other relevant material to plan actions and make decisions (40 CFR § 1502.1).

State CEQA Guidelines § 15121(a) states,

> An EIR is an informational document which will inform public agency decision-makers and the public generally of the significant environmental effect of a project, identify ways to minimize the significant effects, and describe reasonable alternatives to the project. The public agency shall consider the information in the EIR *along with other information which may be presented to the agency*" (emphasis added). A discussion of the potential ramifications of increasing California's supply of natural gas imported from out-of-state, whether such gas comes from other states or other countries, is more appropriately classified as "other information which may be presented to the agency.

1.2.5 Applicant's Purpose and Objectives

BHPB states that the Project's purpose is "to deliver clean burning natural gas to the West Coast of the United States by construction and operation of an LNG import terminal" (Entrix 2003). BHPB was asked to define its Project objectives to assist the lead agencies' development and evaluation of Project alternatives. BHPB's objectives for the Cabrillo Port LNG Deepwater Port can be summarized from its Environmental Assessment (Entrix 2003) as follows:

- Address California's growing demand for clean-burning natural gas for electric power generation, industrial, residential, and commercial uses, thus furthering the national goal of energy sufficiency;
- Provide California consumers access to sources of natural gas from the Pacific Rim and provide greater flexibility and reliability in gas providers; and
- Deliver an annual average of 800 MMcfd (22.7 million m^3) of natural gas per day into the Southern California area via the existing SoCalGas natural gas transmission system.

The Applicant states that the Project could help Southern California residents and businesses meet their growing natural gas needs over the short- and mid-term by providing the State with access to previously unreachable supplies of natural gas.

Natural gas-fired electric generation has grown faster than other uses and even more in other western states, some of which California competes with for gas supplies. The natural gas delivered by the Project would be relatively clean burning compared to other fuel sources and would meet all California regulatory specifications for pipeline natural gas without further treatment (the liquefaction process would remove most sulfur, nitrogen, water, ethane, propane, and heavier hydrocarbons).

Specifically, Cabrillo Port would provide a new facility for receiving LNG carriers from the Pacific Basin and transporting natural gas into Southern California markets via the existing SoCalGas natural gas transmission infrastructure. Because natural gas would most likely be supplied from significant existing reserves in Australia, California would no longer need to rely solely on gas from North America. This would improve California's competitive position while providing greater flexibility and diversity and enhanced natural gas supply security. Since the proposed FSRU would store gas offshore, it could also continuously and reliably supply natural gas to shore even during times when bad weather or other concerns would otherwise prevent an LNG carrier from mooring alongside and unloading at the DWP. Since the regasification process generally is slower than the carrier-unloading process, the availability of storage at the FSRU would also allow the regasification process to proceed independently of unloading and would reduce the time the LNG delivery vessels must be moored.

The proposed Project is an investment by BHPB, a private firm, without any funding by public sources.

1.3 PURPOSE AND SCOPE OF THE EIS/EIR

The purposes of preparing the EIS/EIR are to:

- Identify and evaluate the potential direct, indirect, and cumulative impacts on the natural and human environment that would result from the implementation of the proposed Project;
- Describe and assess reasonable alternatives to the proposed Project or the location of the Project that would feasibly attain most of the basic objectives of the Project but would avoid or substantially lessen any significant adverse effects of the Project on the environment;
- Identify and recommend specific mitigation measures, as necessary, to avoid or minimize significant environmental effects; and
- Encourage and facilitate involvement by the public and interested agencies in the environmental review process.

This document has been prepared to comply with NEPA, CEQ regulations for implementing NEPA (40 CFR §§ 1500–1508), Department of Homeland Security Environmental Planning Program (Management Directive 5100.1), USCG Implementation Regulations (Commandant's Instructions, National Environmental Policy Act: Implementing Procedures and Policy for Considering Environmental Impacts M16475.1D), the DWPA, the CEQA, and the State CEQA Guidelines (14 CCR § 15000

et seq.). As required by NEPA and the CEQA, the EIS/EIR describes the Project's permitting and regulatory requirements, applicable regulations, and the Project's compliance with them. Several comments suggested specific mitigation measures; the EIS/EIR describes feasible mitigation measures to minimize significant adverse impacts. In addition, comments were received expressing either opposition or support for the Project. This document does not need to be altered to reflect those views; however, all comments received are part of the public record and will be made available to decision-makers.

The Final EIS/EIR addresses the entire proposed Project in accordance with terms set out in NEPA and the CEQA that require presentation of environmental impacts.

The offshore Project is under the jurisdiction of the USCG/MARAD and the CSLC. The facilities under the jurisdiction of the USCG and MARAD include the construction and operation of those that are seaward of the high water mark. The USCG also approves the design and operation of the FSRU and regulates the operation of LNG carriers. The facilities under the CSLC's jurisdiction include the pipelines that cross the State's tide and submerged lands from the mean high tide line to 3 NM (3.5 miles or 5.6 km) offshore. The CPUC has jurisdiction over the onshore pipelines in the SoCalGas system, as described in Section 4.2, "Public Safety: Hazards and Risk Analysis."

Executive Order 12114, Environmental Effects Abroad of Major Federal Actions, requires Federal agencies to consider the potential environmental effects of major Federal actions that could significantly affect the global commons outside the jurisdiction of any nation, e.g., the oceans or Antarctica, or the environment of a foreign nation not participating with the United States and not otherwise involved in the action.

While the Executive Order does not apply to this specific Project, the requirements are nonetheless satisfied to the extent that the potential effects on the oceans are considered. While LNG carriers are transiting the Pacific Ocean, they must comply with the major maritime treaties agreed to by the International Maritime Organization (IMO) such as the International Convention for the Safety of Life at Sea, popularly known as the "SOLAS Convention," and the International Convention for the Prevention of Pollution from Ships, popularly known as the "MARPOL Convention." In addition, LNG vessels must comply with the International Code for the Construction and Equipment of Ships Carrying Liquefied Gases in Bulk, known as the "IGC Code."

The Applicant has stated that the source of the natural gas for this Project would be Australia, Malaysia, or Indonesia. As these countries are sovereign nations, the Applicant would be required to comply with those countries' applicable environmental laws and regulations pertaining to the extraction and development of natural gas fields as well as those pertaining to the liquefaction and transfer of LNG to LNG carriers. Consideration of the Applicant's compliance with a foreign nation's applicable laws and regulations is beyond the scope of this EIS/EIR.

The Applicant has indicated that the Scarborough natural gas field in the state of Western Australia could be a potential source of natural gas for the Project.

Development of this or any other Australian natural gas source would be carried out in accordance with applicable federal and state laws and regulations of Australia and Western Australia. These include the Commonwealth Environmental Protection and Biodiversity Conservation Act of 1999 and the Western Australian Environmental Protection Act 1986. The combination of Commonwealth and State legislation provides for a high level of environmental assessment of project activities to promote ecologically sustainable development through the conservation and ecologically sustainable use of natural resources. Before any activity can be undertaken, there would be a full examination of potential environmental impacts that ensures appropriate mitigation measures are in place to protect conservation values (Macfarlane 2005; see Appendix L). Environmental legislation similar to NEPA/CEQA is also in effect in both Malaysia and Indonesia. In Malaysia, environmental impact assessments are required, including public participation, under section 34A of the Environmental Quality Act of 1974 (MDOE 2006). In Indonesia, the Environmental Management Act No. 23 of 1997 also includes provisions for public involvement and, in Article 6, item 2, states that every person carrying out a business or other activity must provide true and accurate information regarding environmental management (APCEL 2006). Regulations including the Government Regulation on Environmental Impact Assessment No. 27 of 1999 also guide assessment. In addition, both countries are signatories to the Kyoto Protocol (entry into force dates: Indonesia, March 3, 2005; Malaysia 16 February, 2005), and the Convention on Biological Diversity (entry into force dates: Indonesia, March 3, 2005; Malaysia, December 2, 2003) (UNFCCC 2006; CBD 2006).

LNG-related operations in the Scarborough or any other field and within the jurisdictional waters of Australia would be closely regulated, and any environmental impacts would be mitigated consistent with applicable Australian law. This analysis entails detailed risk assessments; implementation strategies; and mitigation, monitoring, and reporting obligations. Activities that may have a significant environmental impact, particularly to threatened or endangered species and the overall marine environment, would be subject to additional specific assessment processes and approval subject to detailed conditions required under the Environmental Protection and Biodiversity Conservation Act (Macfarlane 2005).

The topics addressed in this document include oceanography, public safety, marine traffic, aesthetics, agriculture and soils, air quality, biological resources—marine and terrestrial, cultural resources, energy and mineral resources, environmental justice, geologic resources, hazardous materials, land use, noise, recreation, socioeconomics, transportation, and water quality (see Chapter 4, “Environmental Analysis”). This document describes the affected environment as it exists, discusses the environmental consequences of the proposed Project, compares the Project’s potential impacts with those of the alternatives, and evaluates cumulative impacts. It also identifies mitigation measures and includes a Mitigation Monitoring Program (MMP).

1.3.1 The U.S. Coast Guard and MARAD

MARAD and the USCG are responsible for processing license applications to own, construct, and operate DWPs. As such, MARAD and the USCG are the lead Federal

agencies for the preparation of the EIS/EIR in compliance with the requirements of NEPA, the CEQ regulations for implementing procedural provisions of NEPA (40 CFR §§ 1500 to 1508), the DWPA, and USCG Implementation Regulations (Commandant's Instructions, National Environmental Policy Act: Implementing Procedures and Policy for Considering Environmental Impacts M16475.1D).

The main purposes of the EIS/EIR for MARAD and the USCG are to:

- Provide an environmental analysis sufficient to support the Secretary's licensing decision;
- Facilitate a determination of whether the Applicant has demonstrated that the DWP would be located, constructed, and operated in a manner that represents the best available technology necessary to prevent or minimize any adverse impacts on the marine environment;
- Aid in MARAD and the USCG's compliance with NEPA; and
- Facilitate public involvement in the decision-making process.

This document also considers safety. Specifically, an independent, Project-specific risk assessment has been conducted and mitigation identified for any safety issues. After licensing, additional aspects of DWP safety, including transportation routes near oil and gas production facilities, would be addressed in the DWP's operations manual, which would require USCG approval prior to DWP operations.

The USEPA; the U.S. Department of the Interior, including the Minerals Management Service and the U.S. Fish and Wildlife Service; and the Department of Commerce, National Oceanic and Atmospheric Administration (NOAA) and NOAA National Marine Fisheries Service are cooperating Federal agencies.

On September 29, 2006, the USCG published the Final Rule for DWPs (33 CFR parts 148, 149, and 150) in the Federal Register (Vol. 71, No. 189). These rules govern the Project and include environmental review criteria that will be used in the Final EIS/EIR. These rules govern the Project and include environmental review criteria that will be used in the Final EIS/EIR.

1.3.2 The California State Lands Commission

As the State agency that will consider issuing a lease for the Project's pipelines crossing California State sovereign lands, the CSLC has the principal responsibility for carrying out and approving the Project in California and is thus the lead agency in California for preparing the EIS/EIR. The CSLC is responsible for complying with the CEQA (Public Resources Code § 21000 et seq.) and following the State CEQA Guidelines (14 CCR § 15000 et seq.) in the preparation of an EIS/EIR that will also meet the needs of other State and local agencies. These agencies include the CPUC, the California Coastal Commission, the California Department of Fish and Game (CDFG), the California Air Resources Board, the Los Angeles Regional Water Quality Control Board, the California Department of Transportation (CalTrans), the City of Oxnard and/or Ventura County (for

the onshore part of the Project within the coastal zone), and local air quality control districts such as the Ventura County Air Pollution Control District and the South Coast Air Quality Management District.

The CSLC will use the Final EIS/EIR in its decision-making process when reviewing the application for a right-of-way lease across California State sovereign lands. Prior to approving a project involving lands under the CSLC's jurisdiction (in this case the lease application), the CSLC must certify that:

- The EIS/EIR has been completed in compliance with the CEQA;
- The EIS/EIR was presented to the CSLC in a public meeting and that the CSLC reviewed and considered the information contained in the Final EIS/EIR before considering the proposed Project; and
- The EIS/EIR reflects independent judgment and analysis (State CEQA Guidelines § 15090(a)).

The CSLC will hold a public hearing to determine whether or not to certify the Final EIR. If the CSLC does not certify the EIR, the CSLC and other State and local agencies cannot take further action on the Project. If the CSLC certifies the Final EIR, the CSLC must prepare one or more written findings of fact for each significant environmental impact identified in the document. These findings must state one of the following:

- The Project has been changed (including adoption of mitigation measures) to avoid or substantially reduce the magnitude of the impact;
- Changes to the Project are within another agency's jurisdiction and have been or should be adopted; or
- Specific considerations make mitigation measures or alternatives infeasible.

Following certification, the CSLC will act on the lease application at the same, or a subsequent, public hearing. If the EIS/EIR identifies any impacts that cannot be reduced to below its significance criteria, the CSLC must also adopt issue a Statement of Overriding Considerations to approve the Project if "the specific economic, legal, social, technological, or other benefits of a proposal project outweigh the unavoidable adverse environmental effects" (State CEQA Guidelines § 15093(a)). If the CSLC decides to approve the Project, it will issue a Notice of Determination, after which other State and local agencies may take actions on the Project, i.e., on related permits or necessary approvals.

1.3.3 Memorandum of Agreement between USCG, MARAD, and CSLC

USCG, MARAD, and CSLC have a Memorandum of Agreement (MOA) for the review of Deepwater Port license applications. The MOA became effective on December 9, 2003, and formalizes the working relationship between the three agencies and defines the roles and responsibilities of the respective agencies. The MOA does not go beyond the responsibilities already established by State or Federal law or regulation.

1.4 CEQA RECIRCULATION

1.4.1 Reason for Recirculation

The Cabrillo Port LNG Deepwater Port Draft EIS/EIR was published in October 2004 and circulated for public comment. Public meetings and hearings were held to receive comments on the environmental effects of the proposed Project in compliance with NEPA and the CEQA. The Applicant and the lead agencies reviewed the comments and, based on this review, the Applicant revised elements of the Project (see bulleted items below).

The State CEQA Guidelines § 15088.5(a) states, "A lead agency is required to recirculate an EIR when significant new information is added to the EIR after public notice is given of the availability of the draft EIR for public review under Section 15087 but before certification." The State lead agency, the CSLC, determined that the Project modifications and potential impacts thereof constituted "significant new information" as defined in the State CEQA Guidelines § 15088.5(b). However, MARAD and the USCG determined that there was not a need to recirculate the Draft EIS under NEPA. Therefore a Revised Draft EIR was published in March 2006, and the three agencies continued to work together closely upon completion of the recirculation under CEQA to develop this single document as the Final EIS/EIR.

The State CEQA Guidelines § 15088.5(4)(f)(1) further states, "When an EIR is substantially revised and the entire document is recirculated, the lead agency may require reviewers to submit new comments and, in such cases, need not respond to those comments received during the earlier circulation period." Nevertheless, comments on the October 2004 Draft EIS/EIR were reviewed, and environmental issues are addressed within the chapters of the March 2006 Revised Draft EIR and this Final EIS/EIR. As discussed in Section 1.5.4, "Notification and Public Communication About the Draft EIR," commenters on the Draft EIR are requested to consult Table 1.4-1 at the end of Chapter 1 to determine where comments on the October 2004 Draft EIS/EIR and March 2006 Revised Draft EIR are addressed in this document.

Responses to the comments are provided in Volume IV of this Final EIS/EIR. All changes to the Application and modifications of the proposed Project up to the publication of the Revised Draft EIR and all subsequent changes to the proposed Project have been included, and the potential impacts have been analyzed and incorporated in this Final EIS/EIR.

1.4.2 Changes to the Project and Analyses Since Publication of the March 2006 Revised Draft EIR

In response to agency and public comments, the Applicant has revised the Project in several ways since the issuance of the March 2006 Revised Draft EIR as summarized below:

- **Reduction in the Number of LNG Carriers and Change in Crew Vessel Trips.** A maximum of 99 LNG carriers would deliver no more than 13.7 million m^3 of LNG annually. The size of the LNG carriers would range from 138,000 to 210,000 m^3. The number of dockings would range from 65 to 99 per year, depending on the size of the LNG carriers that are used. Previously the Applicant had proposed up to 130 LNG carrier dockings per year. Since a crew vessel would be present during the berthing and deberthing of every LNG carrier, crew vessels would travel twice from Port Hueneme to Cabrillo Port for each LNG carrier docking. Additional information is presented in Section 4.3.
- **Closed Tempered Loop Cooling System.** The previously proposed FSRU generator engine cooling system used seawater as the source of cooling water for the four generator engines. The Applicant now proposes using a closed tempered loop cooling system that circulates water from two of the eight SCVs through the engine room and back to the SCVs. The seawater cooling system would serve as a backup system during maintenance of the SCVs or when the inert gas generator is operating. Additional information is presented in Section 2.2.2.4.

The following Project changes would reduce emissions of air pollutants and are presented in more detail in Section 4.6.

- **Use of Natural Gas to Power LNG Carriers in California Coastal Waters.** LNG carriers that would operate in California Coastal Waters, as designated by the California Air Resources Board, instead of only within 25 NM of the coastline, would be fueled with a 99 percent natural gas/1 percent diesel mixture.
- **Diesel-Fueled Support Vessels with Emission Controls.** Instead of fueling tugboats and the crew/supply vessel with LNG during Project operations, the Applicant would use diesel engines equipped with air pollution control technology that would reduce emissions of carbon monoxide, oxides of nitrogen, and reactive organic compounds below levels that would have resulted from the use of natural gas-fueled engines.
- **Use of Specific Engine Standards for Onshore Construction Equipment.** Engines in onshore construction equipment would comply with the USEPA's tiered nonroad emission standards. As a result of the emission reductions, MARAD and the USCG have determined that the General Conformity Rule would not apply.

The Applicant has committed to implement the following additional measure to reduce air emissions:

- **Repowering of Existing Non-Project Vessels with Cleaner Burning Engines.** Two tugs that currently operate in the area and along the California coastline, but which are not related to Project operations, would be repowered with cleaner engines to achieve emissions reductions.

1.5 PUBLIC REVIEW AND COMMENT OPPORTUNITIES

1.5.1 Scoping Activities

Preparation of the October 2004 Draft EIS/EIR began on February 3, 2004. A Notice of Intent/Notice of Preparation (NOI/NOP) was provided to the California State Clearinghouse for release on February 24, 2004, and was published in the Federal Register (Vol. 69, No. 39) on February 27, 2004. During the scoping period, which ended on March 31, 2004, MARAD, the USCG, and the CSLC held three open houses and three scoping meetings: two in Oxnard on March 15, 2004, and one in Malibu on March 16, 2004. All scoping meetings were held in wheelchair-accessible sites, and the NOI/NOP provided information for requesting special accommodations for the scoping meetings, such as simultaneous Spanish translation. The informal open house format allowed meeting participants to review displays, maps, and literature and to meet agency staff, members of the EIS/EIR project team, and BHPB personnel for one-on-one discussions. Repositories were provided to receive written comments. Approximately 305 persons attended the scoping meetings and open houses in Oxnard and Malibu.

Other scoping activities included:

- Providing the NOI/NOP by electronic mail to 94 persons;
- Mailing more than 900 postcards announcing the scoping meetings and open houses;
- Mailing the NOI/NOP and scoping meetings and open houses announcement via certified mail to 63 interested parties;
- Publishing scoping meetings and open house notice advertisements in the following newspapers: the Malibu Surfside News; The Malibu Times; The Signal (Santa Clarita); and the Ventura County Star;
- Publishing the NOI/NOP in the Federal Register (Vol. 69, No. 39) and posting the document on the CSLC's website (http://www.slc.ca.gov);
- Developing a Project public-access website (http://www.cabrilloport.ene.com) to provide easy access to public information regarding the Project and an opportunity to make comments on line regarding the proposed Project;
- Initiating consultation with several of the key agencies in preparation for the public scoping meetings, including the Minerals Management Service, the Ventura County Air Pollution Control District, Ventura County Planning, the Oxnard City Manager's Office, the California Coastal Commission, and the CPUC; and
- Sending the NOI/NOP to the local libraries listed below and requesting that they serve as a repository for public documents related to the Project. (A docket for the Project exists on the U.S. Department of Transportation website at

http://dms.dot.gov - docket number 16877. This serves as another repository for Project information.)

- California State University Long Beach Library, Government Publications, 6101 East Seventh Street, Long Beach, CA 90840
- Los Angeles Public Library, Serials Division, 630 West Fifth Street, Los Angeles, CA 90071
- University of California Los Angeles, University Research Library, Public Affairs Svc., 405 Hilgard Avenue, Los Angeles, CA 90024
- University of California Santa Barbara, Government Publications Unit, Santa Barbara, CA 93106
- California Polytechnic University, San Luis Obispo Library, Government Publications Section, San Luis Obispo, CA 93407

Due to the large number of Spanish-speaking residents in the Project area, fact sheets and other information about the proposed Project were provided in both English and Spanish throughout the scoping process. The Project public-access website (http://www.cabrilloport.ene.com) includes English and Spanish versions of the NOI/NOP and related information regarding the proposed Project, LNG, the DWPA, and the open houses and scoping meetings. Spanish-speaking individuals were available at all three open houses and scoping meetings for participants who required translations, and literature provided at the open houses was available in both English and Spanish. Several participants made public, oral comments in Spanish, which the Spanish-speaking EIS/EIR Project team translated and recorded.

1.5.2 Scoping Comments

In addition to comments received during these scoping meetings, the USCG and the CSLC received more than 150 electronic-mail messages, postcards, and letters from elected officials, agencies, organizations, and private citizens.

The following public officials provided comments:

- Dr. Manuel Lopez, Mayor of the City of Oxnard;
- Ventura County Supervisor John Flynn;
- State Senator Sheila Kuehl;
- Assembly Member Fran Pavley;
- Assembly Member Hannah-Beth Jackson; and
- Congresswoman Lois Capps.

The following governmental agencies provided comments:

- U.S. Environmental Protection Agency;
- U.S. Navy;
- California Department of Fish and Game;
- California Energy Commission;
- City of Oxnard;
- County of Santa Barbara Air Pollution Control District;
- County of Ventura; and
- County of Ventura Air Pollution Control District.

The following non-governmental organizations provided comments:

- Earth Alert;
- Environmental Defense Center;
- Hollister Ranch Owners' Association;
- League of Women Voters;
- Los Angeles Area Chamber of Commerce;
- Physicians for Social Responsibility;
- Saviers Road Design Team;
- Sierra Club; and
- Ventura Industry and Commerce Association.

All scoping comments, the resolutions, and the transcripts of public meetings are available on the U.S. Department of Transportation docket (http://dms.dot.gov , docket number 16877). Transcripts are also posted on the Project public-access website, http://www.cabrilloport.ene.com. Table 1.4-1 at the end of Chapter 1 identifies the issues that were derived from the scoping and comment periods for the October 2004 Draft EIS/EIR and the sections of this report in which the issues are addressed.

1.5.3 Notification and Public Communication about the October 2004 Draft EIS/EIR

On October 29, 2004, the USCG submitted the October 2004 Draft EIS/EIR to the USEPA for inclusion in the Federal Register, and the CSLC submitted a Notice of Completion and the Draft EIS/EIR to the State Clearinghouse. On November 5, 2004, the Notice of Availability was published in the Federal Register (Vol. 69, No. 214). The public comment period initiated by the Notice of Availability (45 days) and Notice of Completion (52 days) ended on December 20, 2004. In addition to the USEPA headquarters and the State Clearinghouse, copies of the EIS/EIR were distributed to

Federal, State, and locally elected officials; Federal and State agencies, regional regulatory boards, local planning staffs, and the public.

The following list summarizes the types of public communication activities conducted by the USCG, MARAD, and CSLC:

- Mailed more than 1,330 postcards announcing the availability of the October 2004 Draft EIS/EIR and the dates for the public meetings and open houses;
- Mailed the Notice of Availability, scoping meetings, and open houses announcement to 981 interested parties;
- Published paid advertisements in local newspapers: the Malibu Surfside News; the Malibu Times; the Signal (Santa Clarita); the Ventura County Star (Notice published in English and Spanish); and Vida Newspaper (a bilingual Spanish and English newspaper distributed in Ventura County);
- Held press availability sessions during the first and last public meetings to provide reporters from interested media outlets an opportunity to speak with agency representatives;
- Published the Notice of Availability in the Federal Register (Vol. 69, No. 214) and posted the Notice of Completion on the CSLC's website (http://www.slc.ca.gov);
- Updated the Project public-access website (http://www.cabrilloport.ene.com) to provide easy access to public information regarding the Project and an opportunity to make comments online regarding the Draft EIS/EIR;
- Established several repositories for public documents related to the Project, including public libraries (see Table 1.5.1) and the docket for the Project that exists on the U.S. Department of Transportation website at http://dms.dot.gov (docket number 16877); and
- Posted the October 2004 Draft EIS/EIR on the CSLC and Project public-access websites.

Due to the large number of Spanish-speaking residents in the Project area, fact sheets and other information about the proposed Project were provided in both English and Spanish. The October 2004 Draft EIS/EIR was translated into Spanish and was available to anyone who requested it. The Project public-access website (http://www.cabrilloport.ene.com) includes English and Spanish versions of the Notice of Availability and Notice of Completion and related information regarding the proposed Project, LNG, the DWPA, and the open houses and public meetings.

Table 1.5.1 Libraries or Other Publicly Accessible Repositories for Project EIS/EIR Documents

Ventura County Libraries	Avenue Library	606 North Ventura Avenue, Ventura, CA 93001 (805) 643-6393
	H.P. Wright Library	57 Day Road, Ventura, CA 93003 (805) 642-0336
	Albert H. Soliz Library	2820 Jourdan Street, Oxnard, CA 93030 (805) 485-4515
	Ray D. Prueter Library	510 Park Avenue, Port Hueneme, CA 93041 (805) 486-5460
Oxnard Public (City) Libraries	Main Library	251 South A Street, Oxnard, CA 93030 (805) 385-7500
	South Oxnard Center	200 East Bard Road, Oxnard, CA 93033 (805) 385-8129
	Colonia Center Library	1500 Camino del Sol, # 21, Oxnard, CA 93030 (805) 385-8108
Los Angeles County Libraries	California State University Long Beach Library	Govt. Publications 6101 East Seventh Street, Long Beach, CA 90840
	Los Angeles Public Library	Serials Division 630 West Fifth Street, Los Angeles, CA 90071
	Newhall Library	22704 West Ninth Street, Newhall, CA 91321 (661) 259-0750
	Santa Clarita Valley Book Mobile	22704 West Ninth Street, Santa Clarita, CA 91321 (661) 260-1792 (location in Santa Clarita differs daily)
	University of CA Los Angeles, Univ. Research Library	Public Affairs Svc. 405 Hilgard Avenue, Los Angeles, CA 90024
	Valencia Library	23743 West Valencia Boulevard, Valencia, CA 91355 Circulation: (661) 259-8942; Reference: (661) 259-8332
Malibu Library	Malibu Community Library	23519 West Civic Center Way, Malibu, CA 90265 (310) 456-6438
Other Regional State Clearinghouse Repository Libraries	University of CA, Santa Barbara	Govt. Publications Unit Santa Barbara, CA 93106
	California Polytechnic University, San Luis Obispo Library	Govt. Publications Section San Luis Obispo, CA 93407

1.5.3.1 Open Houses and Public Meetings for the October 2004 Draft EIS/EIR

During the comment period, the USCG, MARAD, and the CSLC held four open houses and four public meetings:

- One open house and one public meeting in Santa Clarita at the City Council Chambers on November 29, 2004;

- Two each in Oxnard at the Performing Arts Center on November 30, 2004; and
- One each in Malibu at the Webster Elementary School on December 1, 2004.

The format of the informal open houses allowed meeting participants to review displays, maps, and literature and to meet agency staff, members of the EIS/EIR Project team, and BHPB personnel for one-on-one discussions. Repositories were provided to receive written comments. Approximately 676 persons attended the public meetings and open houses in Santa Clarita, Oxnard, and Malibu, and 195 people gave oral comments at these meetings.

All public meetings were held in wheelchair-accessible sites, and the Notice of Availability provided information for requesting special meeting accommodations, such as simultaneous Spanish translation. No one requested simultaneous Spanish translation services for the public meetings. Spanish-speaking individuals were available at all four open houses and public meetings for participants who required translations, and literature provided at the open houses was available in both English and Spanish.

1.5.3.2 Public Comments on the October 2004 Draft EIS/EIR

In addition to the 195 people who gave oral comments during the public meetings on the October 2004 Draft EIS/EIR, the USCG and CSLC received more than 500 electronic-mail messages, postcards, and letters from elected officials, agencies, organizations, and private citizens on the October 2004 Draft EIS/EIR. All written comments on the October 2004 Draft EIS/EIR and the transcripts of public meetings are available for public review on the DOT docket (http://dms.dot.gov, docket number 16877).

As previously discussed in Section 1.4, "CEQA Recirculation," all of the comments received during the scoping process and comment period for the October 2004 Draft EIS/EIR were reviewed by the lead agencies, and the March 2006 Revised Draft EIR (and this Final EIS/EIR) addresses environmental issues raised by public comments during the review period for the October 2004 Draft EIS/EIR. Table 1.4-1 at the end of Chapter 1 identifies the sections of this document where the issues are addressed. Responses to all comments on the October 2004 Draft EIS/EIR (and the March 2006 Revised Draft EIR) are provided in Volume IV of this Final EIS/EIR (available only on CD).

1.5.4 Notification and Public Communication about the March 2006 Revised Draft EIR

On March 13, 2006, the CSLC submitted a Notice of Availability and the Revised Draft EIR to the California State Clearinghouse. The public comment period initiated by the Notice of Availability (45 days) was subsequently extended and ended on May 12, 2006. In addition to the USEPA headquarters and the State Clearinghouse, copies of the Revised Draft EIR were distributed to Federal, State, and locally elected officials and agencies; regional regulatory boards; local planning staffs; and the public**.** A

Spanish translation of the Revised Draft EIR was published and made available upon request.

The following list summarizes the types of public communication activities conducted by the USCG, MARAD, and CSLC:

- Mailed more than 2,600 postcards announcing the availability of the March 2006 Revised Draft EIR and the dates for the public meetings;
- Published paid advertisements in local newspapers announcing the availability of the March 2006 Revised Draft EIR and the dates for the public meetings: the Malibu Surfside News, The Malibu Times, The Signal (Santa Clarita), the Ventura County Star (Notice published in English and Spanish), and Vida Newspaper (a bilingual Spanish and English newspaper distributed in Ventura County);
- Published the Notice of Completion on the CSLC's website (http://www.slc.ca.gov);
- Updated the Project public-access website (http://www.cabrilloport.ene.com) to provide easy access to public information regarding the Project and an opportunity to make comments online regarding the Revised Draft EIR;
- Established several repositories for public documents related to the Project, including public libraries (see Table 1.5.1) and the docket for the Project that exists on the U.S. Department of Transportation website at http://dms.dot.gov (docket number 16877); and
- Posted the Revised Draft EIR in both English and Spanish on the CSLC and Project public-access websites.

1.5.4.1 Public Meetings for the March 2006 Revised Draft EIR

During the comment period, the CSLC held four public meetings attended by the USCG and MARAD, as follows:

- One in Santa Clarita at the Santa Clarita Activities Center, Santa Clarita Room, on April 17, 2006;
- One in Malibu at the Malibu High School on April 18, 2006; and
- Two in Oxnard at the Performing Arts Center, Oxnard Room, on April 19, 2006.

Repositories were provided to receive written comments. More than 1,000 persons attended the public meetings in Santa Clarita, Malibu, and Oxnard, and 214 people gave oral comments at these meetings.

All public meetings were held in wheelchair-accessible sites, and the Notice of Availability provided information for requesting special meeting accommodations. Simultaneous Spanish translation services were provided for the Oxnard public meetings in response to the request of the Oxnard City Manager's Office. Spanish-speaking individuals were available at all four public meetings for participants who

required translations, and literature provided at the public meetings was available in both English and Spanish.

1.5.4.2 Public Comments on the March 2006 Revised Draft EIR

The CSLC received more than 500 electronic-mail messages, postcards, and letters from elected officials, agencies, organizations, and private citizens on the March 2006 Revised Draft EIR. All written comments on the Revised Draft EIR and the transcripts of public meetings are available for public review on the DOT docket (http://dms.dot.gov, docket number 16877).

All of the comments received during the comment period for the March 2006 Revised Draft EIR were reviewed by the lead agencies, and this Final EIS/EIR identifies and addresses environmental issues raised in the comments. Table 1.4-1 at the end of Chapter 1 summarizes the issues that were raised by public comments during the review period for the March 2006 Revised Draft EIR and identifies the sections of this document where the issues are addressed. Responses to all comments on the March 2006 Revised Draft EIR (and the October 2004 Draft EIR/EIS) are provided in Volume IV of this Final EIS/EIR (available only on CD).

1.5.5 Public Review of the Final EIS/EIR

This document is filed with the USEPA headquarters and the California State Clearinghouse, is noticed in the Federal Register, and is available at local libraries and on the CSLC website (http://www.slc.ca.gov). A Spanish translation of this document is also available upon request. After publication of this document, there is a required 30-day waiting period before issuance of the Federal Record of Decision.

The USCG and MARAD will hold a final noticed public hearing on the application. After the USCG and MARAD final license hearing, the public will have 45 days to comment on the Final EIS/EIR and the license application. The Federal and State agencies will have an additional 45 days to provide comments to the Administrator of MARAD. The Administrator must issue the Record of Decision within 90 days after the final license hearing.

The CSLC, as the CEQA lead agency, will consider, at a public hearing, the certification of the Final EIR and whether or not to grant a lease of State lands for the subsea pipelines. Section 1.2.1 provides more information on the Federal and State hearing process. The California Coastal Commission will also hold a hearing. Comments received will be evaluated before any final decision is made regarding the proposed Project.

The distribution list for this document, provided in Appendix A, includes all agencies, organizations, and individuals who received a copy of the October 2004 Draft EIS/EIR and/or the March 2006 Revised Draft EIR, as well as other agencies, organizations, and individuals who requested the document.

1.6 PERMITS, APPROVALS, AND REGULATORY REQUIREMENTS

Other major Federal and State license and permit approvals and consultation requirements for the Project include, but are not necessarily limited to, those agencies listed below. MARAD, USCG, and CSLC have initiated consultations with relevant agencies (specifically, the USFWS and NOAA regarding Section 7 of the Endangered Species Act):

- USEPA[3]
  - Clean Water Act stormwater and wastewater discharge permits
  - Authority to Construct permit in accordance with Ventura County Air Pollution Control District Rule 10 for the FSRU
- Advisory Council on Historic Preservation – Section 106, National Historic Preservation Act
- U.S. Army Corps of Engineers
  - Waterways permit under Section 404, Clean Water Act
  - Section 10, Rivers and Harbors Act
- U.S. Fish and Wildlife Service – Section 7, Endangered Species Act
- U.S. Minerals Management Service (see Section 2.3.1)
- U.S. Department of Transportation
  - Encroachment permits
  - Transportation permits
  - Transit Noise and Vibration Impact Assessment
- National Oceanic and Atmospheric Administration (NOAA)
  - Section 7, Endangered Species Act (NOAA Fisheries)
  - Magnuson-Stevens Fishery and Conservation and Management Act (NOAA Fisheries)
  - Marine Mammal Protection Act
- Federal Communication Commission – Telecommunications license

California

- Governor of California – Approval, approval with conditions, or disapproval of Federal DWPA Record of Decision and License Application (see Section 1.1.2);

[3] The USEPA has determined that a Title V Federal operating permit (air quality) would not be needed. In addition, the General Conformity Analysis (Appendix G6) concluded that General Conformity would not apply to onshore construction. See Section 4.6, "Air Quality."

- California Coastal Commission
  - Consistency with the California Coastal Management Program
  - Coastal Development Permit
  - Appeal, if any, of local government action on the Coastal Development Permit for the onshore part of the Project within the coastal zone
- California Coastal Conservancy
  - Lease for part of Project on and/or under California Coastal Conservancy land at Ormond Beach
- CalTrans – Encroachment permits
- Los Angeles Regional Water Quality Control Board
  - Clean Water Act Section 401 certification
  - Hydrostatic test water discharge permit
- CDFG
  - California Endangered Species Act consultation
  - Stream Alteration Agreements
- CDFG Office of Spill Prevention Response
  - Oil Spill Contingency Plan and Certificate of Financial Responsibility for FRSU and support vessels
- State Historic Preservation Office – Section 106 National Historic Preservation Act consultation.

Local

- City of Oxnard or Ventura County – Coastal Development Permit for portion of shore crossing within Local Coastal Program (LCP) jurisdiction
- County of Ventura
  - Watershed Protection District – review and permitting
  - Public Works Agency Transportation Department – Encroachment permits
  - Planning Division – establish noise ordinances
- City of Oxnard
  - Public Works Department – Encroachment permits
  - Planning and Environmental Services – establish noise ordinances
- City of Santa Clarita
  - Public Works Department – Encroachment permits
  - Oak Tree Permit

- Planning and Environmental Services – establish noise ordinances.

1.7 CONTENTS OF THE FINAL EIS/EIR

This Final EIS/EIR describes the proposed action (Chapter 2) and alternatives (Chapter 3). It also describes the affected environment as it exists and identifies probable environmental consequences and other impacts that might result from construction and operation of the proposed DWP (Chapters 4 and 5). Chapter 6 contains conclusions and recommendations, and Chapter 7 provides a list of document preparers. Volume III contains appendices, and Volume IV contains responses to comments on the October 2004 Draft EIS/EIR and the March 2006 Revised Draft EIR.

1.8 REFERENCES

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Table 1.4-1 Issues Raised in Public Comments – Location of Discussion in this Document

Topic/Issue	Comment Period			Final EIS/EIR Section Addressing Issue
	Scoping	Draft EIS/EIR	Revised Draft EIR	
Purpose and Need for the Project				
Project purpose, need, and objectives	✓	✓	✓	1.2
Analysis of the source of the natural gas		✓	✓	1.3
Federal and State jurisdiction for the deepwater port		✓	✓	1.1
Dependence on foreign energy sources		✓	✓	1.2
Natural gas needs in the US and California		✓	✓	1.2
Environmental effects abroad		✓	✓	1.2
Energy conservation and renewable energy sources		✓	✓	1.2, 3.3, 4.10.1.3
Final approval process for the EIS/EIR and the license for the deepwater port		✓	✓	1.2.1, 1.5
Project Description				
Infrastructure capacity increases required for the Project; additional infrastructure expansion required when considered with other proposed Projects	✓	✓	✓	4.2, 4.20
FSRU design is untested; provide detailed design specifications		✓	✓	2.1, 2.2
Safety zone during offloading		✓	✓	2.2.4
Pressure of subsea pipelines		✓		2.3.1
Description of horizontal directional drilling and boring (HDD and HDB)		✓	✓	2.6.1
Decommissioning		✓	✓	2.8
Carrier size and shipments per week		✓	✓	2.2.2.3
Onshore pipeline alignment specifics		✓	✓	2.4
Diesel fuel storage/containment		✓		2.2.2.4
FSRU storage of LNG		✓	✓	2.2.2.3
Onshore pipeline excavation details		✓		2.7.1
Treatment/disposal of sanitary wastes		✓		2.2.2.6
Entrainment/impingement		✓		2.2.2.4

Table 1.4-1 Issues Raised in Public Comments – Location of Discussion in this Document

Topic/Issue	Comment Period			Final EIS/EIR Section Addressing Issue
	Scoping	Draft EIS/EIR	Revised Draft EIR	
Anchoring/mooring		✓	✓	2.1, 2.2.3, 2.2.2.3, 2.2.3.1, 2.5.1, 2.5.2, 2.6.1
Source of heat for vaporization		✓		2.2.2.4
Contents of LNG		✓	✓	2.2.1
Location of FSRU		✓	✓	2.1
Distances to key points of interest			✓	2.1
Use of seawater in natural gas throughput operations			✓	2.2.2.6
Natural gas supply			✓	2.2.1
Number of LNG carriers at the FSRU			✓	2.0, 2.2, 2.3
Disposal of drilling fluids			✓	2.6.1
Treatment of gray water			✓	2.2.2.2, 2.2.2.6
Alternatives				
Onshore vs. offshore siting of LNG facility	✓		✓	3.2, 3.3.12
Natural gas supply increases from interstate pipeline additions and expansions	✓	✓	✓	3.3.4
Alternative energy and conservation	✓	✓	✓	3.3.1, 3.3.2
Alternative offshore locations in less populated areas and/or in less ecologically sensitive areas	✓	✓	✓	3.3, 3.4.2
Retrofitting existing power plants with natural gas turbines or other technologies to reduce natural gas consumption by increasing efficiency		✓	✓	3.3.3
Alternative onshore locations in less populated areas, away from sensitive land uses such as Ormond Beach, and outside of California	✓	✓	✓	3.3.12, 3.4.4
Alternative LNG regasification facilities and technologies	✓	✓	✓	3.3.8, 3.3.9

Table 1.4-1 Issues Raised in Public Comments – Location of Discussion in this Document

Topic/Issue	Comment Period			Final EIS/EIR Section Addressing Issue
	Scoping	Draft EIS/EIR	Revised Draft EIR	
Oceanography and Meteorology				
Meteorological conditions		✓	✓	4.1.8
Selection of buoys used in analysis		✓	✓	4.1.8
Estimation of 100-year storm conditions and ability of Project to withstand 100-year storms		✓	✓	4.1.8
The effects of long/deep waves on the proposed offshore pipelines			✓	4.1.8
Public Safety				
Risks to adjacent populations	✓	✓	✓	4.2.6–4.2.8
Security and contingency plans for operations, including any closure of ports and/or airports	✓	✓	✓	4.2.7.6
Security risks due to foreign vessels and crews		✓	✓	4.2.7.3
Emergency response planning and training; source of funding for training and additional personnel	✓	✓	✓	4.2.4, 4.2.5.4, 4.16.1.2
Design and risk of Project with respect to adverse weather conditions, seismic events and resulting tsunamis	✓	✓	✓	4.11
Leak identification and prevention	✓		✓	2.2.2.4, 2.3.1, 2.4.3
Fail-safe backup system	✓			2.2.2.4
Design with respect to volume and pressure of gas emitted from the cold stack	✓			2.2.2.3, 2.2.2.5
Provisions for prevention and consequences of a worst-case terrorist attack	✓	✓	✓	4.2.6.1, 4.2.7.5
General safety measures to minimize vessel collisions	✓	✓	✓	2.1, 4.3.1.4
Proximity to Pacific Missile Range and San Clemente Island Range complex	✓		✓	2.2.2.4
Marking and enforcement of safety zone	✓		✓	2.2.4, 4.3.1.4
Security at and impacts on Ormond Beach odorant station	✓	✓	✓	2.2.2.4
Hazards of onshore pipelines	✓	✓	✓	4.2.8
Onshore emergency planning and response	✓		✓	4.2.4, 4.16.1.2

Table 1.4-1 Issues Raised in Public Comments – Location of Discussion in this Document

Topic/Issue	Comment Period			Final EIS/EIR Section Addressing Issue
	Scoping	Draft EIS/EIR	Revised Draft EIR	
Proximity of pipelines to schools and residences		✓	✓	Table 4.2-19, 4.13.1.3
Movement of existing pipelines and cables to achieve required separation from proposed pipeline	✓			2.6.2.6
Potential for errant missiles from nearby military facilities and safety effects on Navy operations		✓	✓	4.2.2
Adequacy of risk analysis: data, computer modeling, and analysis		✓	✓	4.2.3, 4.2.6; Appendices C1 and C2
Safety record of Applicant		✓	✓	4.2.6
The objectivity of Sandia National Laboratories' review of the IRA			✓	4.2.3, Appendix C2
Whether a release involving all three tanks on the FSRU was considered			✓	4.2.1, 4.2.7.6, Appendix C1
Whether the IRA overstates the potential effects of LNG releases			✓	4.2.7.6
Whether the scenarios were too conservative based on the underlying physics			✓	4.2.7.6
Comparison of the proposed Project to the Typhoon Platform			✓	4.2.1
Marine Traffic				
Impacts on existing marine traffic in the area	✓	✓	✓	4.3.1, 4.3.4
Potential conflicts with other ocean uses such as commercial and recreational fishing, military operations, and tanker traffic	✓	✓	✓	4.3.1, 4.3.4
Risk of collision posed by additional ship traffic; enforcement of safety/precaution zone, Area to Be Avoided (ATBA), and notices to mariners	✓	✓	✓	4.3.1, 4.3.4, 4.2.7.6
Timeliness of the vessel traffic statistics for Port Hueneme			✓	4.3.1.1
Potential conflicts with commercial vessel routes			✓	4.3.1.4, 4.3.4
Impacts on fishing at West Tanner Banks			✓	4.3.4
Project tug and crew vessel routes			✓	4.3.1.3, 4.3.4

Table 1.4-1 Issues Raised in Public Comments – Location of Discussion in this Document

Topic/Issue	Comment Period			Final EIS/EIR Section Addressing Issue
	Scoping	Draft EIS/EIR	Revised Draft EIR	
Compatibility of the FSRU's marine monitoring system with the Port of Los Angeles/Long Beach (LA/LB) VTS system			✓	4.3.1.4
Ability of vessels to respond upon notification of an accident			✓	4.3.4
Contingency plan for disabled LNG vessels			✓	4.3.1.3, 4.3.1.4
Aesthetics				
Effects on views from Mugu Peak, Santa Barbara, Channel Islands, La Jolla hiking trails, and the coastline between Oxnard and Eastern Malibu, including from residences at elevations above sea level	✓	✓	✓	4.4.1, 4.4.4
Visual impacts of artificial light during day and night from all view corridors	✓		✓	4.4.4
Visual aspects of the FSRU			✓	4.4.1.1
Additional visual simulations and information on simulation methods and tools			✓	Appendix F
Air				
Direct and indirect impacts of Project's emissions on human health and the environment	✓	✓	✓	4.6.1, 4.6.4
Odor levels from Project-related activities	✓			4.6.4
Project's contribution to greenhouse gases	✓	✓	✓	4.6.1, 4.20.3.5
Applicability of Ventura County rules			✓	4.6.1.2, 4.6.2, 4.6.4
Attainment designation			✓	4.6.1.2
Emissions in California Coastal Waters			✓	4.6.1.2, 4.6.4
Applicability of the General Conformity Rule			✓	4.6.2
Greenhouse gas emissions/global warming			✓	4.6.1.1, 4.6.1.4
Biological Resources – Marine				
Project impacts on marine flora and fauna and marine habitat; impingement and entrainment of biota; impacts on special status and endangered species	✓	✓	✓	4.7.4
Impact on ocean temperature and resulting effects	✓	✓	✓	4.7.1, 4.7.4, 4.18.1, 4.18.4

Table 1.4-1 Issues Raised in Public Comments – Location of Discussion in this Document

Topic/Issue	Comment Period			Final EIS/EIR Section Addressing Issue
	Scoping	Draft EIS/EIR	Revised Draft EIR	
Effects of increase in vessel traffic on marine mammals and seabirds	✓	✓	✓	4.7.4
Impacts of lighting on marine life	✓	✓	✓	4.7.4
Disturbance of contaminated bottom sediments	✓	✓	✓	4.7.4, 4.18.1, 4.18.4
Project impacts on benthic species	✓	✓	✓	4.7.1, 4.7.4
Impacts on Channel Islands National Marine Sanctuary (CINMS), areas included in potential expansion of the sanctuary, and ecologically sensitive areas (ESAs) located down-current and downwind of the facility	✓		✓	4.7.1, 4.7.4, 4.13.2
Potential for LNG spills to affect fish or other marine life		✓	✓	4.7.4
Noise impacts on marine mammals			✓	4.7.4
Biological Resources – Terrestrial				
Impacts on threatened, endangered, and sensitive species, including the California least tern, western snowy plover, and grunion	✓	✓	✓	4.8.1, 4.8.4
Impacts on terrestrial resources from spills at aboveground facilities, including mercaptan (odorant) release	✓	✓		4.8.1, 4.8.4
Terrestrial biological impacts from accidental spills and mercaptan releases		✓		4.8.4
Lack of plant and animal survey data		✓	✓	4.8.1, 4.8.4
Effects on wetlands, waters of the U.S., sensitive species, and the habitat that supports those species; coastal zone definition and impacts		✓	✓	4.8.1, 4.8.4
CDFG and USFWS definitions and protocol for biological surveys			✓	4.8.1
Baseline conditions of special status plant and wildlife species at Ormond Beach and along alternative pipeline routes			✓	4.8.1.1, 4.8.5.3
Cultural Resources				
Impacts on any archaeological, historical, and sacred resources in the Project area	✓			4.9.1, 4.9.4
Impacts on the site of Alaska Airlines plane crash	✓			4.9.1.3

Table 1.4-1 Issues Raised in Public Comments – Location of Discussion in this Document

Topic/Issue	Comment Period			Final EIS/EIR Section Addressing Issue
	Scoping	Draft EIS/EIR	Revised Draft EIR	
Consultations with Native American sources		✓		4.9.1.3
Reviews of local cultural resource registries		✓		4.9.1.3
How cultural significance and cultural impacts are determined		✓		4.9.1.1
Potential damage to Native American archaeological sites			✓	4.9.2, 4.9.4
Energy and Minerals				
Oil and gas lease sales in the Project area		✓		4.10.1.1
Federal energy and mineral laws		✓		4.10.2
Energy needed for the Project			✓	2.2.2.4
Geologic Hazards/Wind Waves				
Worst-case seismic event and provisions to respond to it, including spill response	✓		✓	4.11.1, 4.11.4, 4.18.1, 4.18.4
Shoreline erosion and fate of eroded material	✓	✓		4.11.1, 4.11.4
Risk of tsunamis in the Project area		✓	✓	4.11.1.8, 4.11.4
Effects of liquefaction on the pipelines		✓	✓	4.11.1.6, 4.11.4
Known faults in the Project area		✓	✓	4.11.1.3, 4.11.4
Regulations concerning pipeline seismic hazards			✓	4.11.3
Hazardous Materials and Waste				
Hazardous waste and materials management; shipment, storage, disposal, and spill reporting requirements.	✓	✓	✓	4.12.1, 4.12.2, 4.11.4
Impacts from hazardous material and waste releases	✓		✓	4.12.4
Spill prevention planning and training			✓	4.12.2, 4.12.4
Potential release of drilling fluid to the seafloor			✓	4.12.4
Applicable regulations, including Proposition 65			✓	4.12.2
Unearthing of contaminated soil			✓	4.12.4
Status of the Whittaker-Bermite property cleanup			✓	4.12.1.2, 4.12.4

Table 1.4-1 Issues Raised in Public Comments – Location of Discussion in this Document

Topic/Issue	Comment Period			Final EIS/EIR Section Addressing Issue
	Scoping	Draft EIS/EIR	Revised Draft EIR	
Land Use				
Proximity to major population centers, schools, the only hospital in Oxnard, senior housing, a shopping center, Oxnard Community College, Channel Islands High School, the California Youth Authority, a military base, a national park, a marine sanctuary, public recreation areas, and Ormond Beach wetlands	✓	✓	✓	4.13.1,2.4
Conflicts with Point Mugu Sea Range	✓	✓	✓	4.3.1, 4.13.5; Figure 4.3-2
Effect on possible designation of Ormond-Mugu-Malibu shoreline as National Seashore	✓	✓		4.13.1
Effects on restoration plans or activities at Ormond Beach		✓	✓	4.13.1
Consistency with plans, especially the Coastal Zone Management Act (CZMA), City of Malibu, and any future expansions of the CINMS	✓	✓	✓	4.13.1, 4.13.2
Potential future school sites and other sensitive land uses		✓	✓	4.13.1.3
Relevant land use plans and franchise agreements			✓	4.13.2
Sensitive land uses in Los Angeles County			✓	4.13.1.4
Noise				
Noise impacts during all phases of FSRU construction and use, particularly on sensitive receptors, air and underwater noise levels, foghorns	✓		✓	4.14.1, 4.14.4, 4.7.4
Establish baseline noise levels		✓	✓	4.14.1.1, 4.14.1.2, 4.14.1.3, 4.14.1.4
Establish significance criteria		✓	✓	4.14.3
Discuss groundborne noise and vibration		✓		4.14.1, 4.14.4
Effectiveness of mitigation measures		✓	✓	4.14.4
Applicable regulatory standards		✓	✓	4.14.2
Clarification of units		✓		4.14.1

Table 1.4-1 Issues Raised in Public Comments – Location of Discussion in this Document

Topic/Issue	Comment Period			Final EIS/EIR Section Addressing Issue
	Scoping	Draft EIS/EIR	Revised Draft EIR	
Recreation				
Effects of the FSRU and safety zone on recreational fishing, boating, tourism and sense of wilderness in the area	✓	✓		4.15.1, 4.15.4, 4.16.1, 4.16.4
Effects on recreational opportunities at Ormond Beach or future restoration plans that could increase recreational opportunities at Ormond Beach	✓	✓		4.15.1, 4.15.4
Long-term impacts on recreation due to pipeline accidents or natural gas leakage		✓		4.15.1, 4.15.4
Effects of alternatives on State beaches			✓	4.15.5.2
Socioeconomics				
Impacts on the fishing industry from LNG carrier traffic and safety zone	✓	✓	✓	4.16.1, 4.16.4
Impacts on Oxnard and Ventura County's economies: job creation, construction-related access to business, attractiveness to business, and property values	✓	✓	✓	4.16.1, 4.16.3, 4.16.4, 4.17.4
Impacts on physical infrastructure and emergency services, including hospitals	✓		✓	4.16.1, 4.16.4
Impacts on overall local economy		✓	✓	4.16.3, 4.16.4
Liability for accidents	✓	✓	✓	4.2.5
Housing availability during construction				4.16.1.2, 4.16.3
Transportation				
Effect on existing transportation system	✓	✓	✓	4.17.1, 4.17.3, 4.17.4
Traffic disruptions due to construction activities, including activities at storage yard		✓	✓	4.17.4
Roadway lane closures		✓	✓	4.17.3, 4.17.4
Impacts on air traffic			✓	4.17.1.2
Impacts on air traffic for the Point Mugu Shore Crossing/Casper Road Pipeline Alternative		✓		3.4.3.1, 4.17.3

Table 1.4-1 Issues Raised in Public Comments – Location of Discussion in this Document

Topic/Issue	Comment Period			Final EIS/EIR Section Addressing Issue
	Scoping	Draft EIS/EIR	Revised Draft EIR	
Clarification of transportation related permits		✓	✓	4.17.2, 4.17.3, 4.17.4
Water Quality				
Impacts on water quality from intake and discharge of ballast water, petroleum products, sewage, litter, cleaning waters, wash-down waters, and other uses	✓	✓	✓	4.18.1, 4.18.4
Erosion and sedimentation from onshore pipeline construction	✓	✓	✓	4.11.1, 4.11.4, 4.18.1, 4.18.4
Worst-case scenario spills	✓		✓	4.18.1, 4.18.4
Increase in turbidity or accidental unearthing of contaminants during offshore construction		✓	✓	4.18.4
Water quality impacts from cleaning and wash down waters and other wastes		✓		4.18.4
Degradation of water quality due to Project support vessels			✓	4.18.4
Clean Water Act requirements for the Project			✓	4.18.2
Basis for calculating discharges, ballast water, deck runoff and others			✓	4.18.4
Environmental Justice				
Effects on disadvantaged populations, siting logic, participation of these populations in public scoping, mitigation measures to reduce any disproportionate impacts.	✓	✓		4.19.1, 4.19.4
Explanation or clarification of the environmental justice analysis methodology		✓	✓	4.19
Identification of cultural, socioeconomic, and ethnic populations that could be affected disproportionately by this Project		✓	✓	4.19.1
Explanation of why certain impacts are not environmental justice issues		✓	✓	4.19.4

Table 1.4-1 Issues Raised in Public Comments – Location of Discussion in this Document

Topic/Issue	Comment Period			Final EIS/EIR Section Addressing Issue
	Scoping	Draft EIS/EIR	Revised Draft EIR	
Cumulative Impacts				
Possible construction of desalination plants at Ormond Beach	✓			4.20.2
Crystal Energy LLC Clearwater Port LNG Importation Facility and other LNG projects		✓	✓	4.20.1.1, 4.20.3
Increased vessel traffic in the Santa Barbara Channel/expansion of the Port of Long Beach/Los Angeles		✓	✓	4.20.1, 4.20.3
Project's contribution to global warming		✓	✓	4.20.3.6
Noise effects on marine mammals			✓	4.20.3.7
Impacts on Naval operations due to the presence of LNG carriers transiting to and from potentially multiple LNG terminals in California			✓	4.20.1.7, 4.20.3.3
Potential impacts on the expansion of the Channel Island National Marine Sanctuary			✓	4.20.1.5, 4.20.3.13
Combined impacts of multiple LNG facilities in Southern California			✓	4.20.1, 4.20.3.3, 4.20.3.6